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MUNICIPAL OWNERSHIP IN GREAT BRITAIN¹

The truth as to municipal ownership in Great Britain has not always been correctly reported to Americans; and it is now high time to give the exact facts, and leave theorizing to the doctrinaires.

PART I. STREET RAILWAYS

Under this head let us begin with the following comparative study:

CITIES WITH A POPULATION OF:	UNITED KINGDOM		UNITED STATES	
	Number	Proportion Supplied with Street Railways in 1903	Number	Proportion Supplied with Street Railways in 1902
		Per Cent.		Per Cent.
5,000 and less than 6,000.....	95	11	147	41
6,000 " " " 7,000.....	75	13	98	52
7,000 " " " 8,000.....	60	13	75	61
8,000 " " " 9,000.....	43	9	45	71
9,000 " " " 10,000.....	44	16	50	76
10,000 " " " 12,000.....	84	17	62	84
12,000 " " " 15,000.....	91	31	75	95
15,000 " " " 20,000.....	75	30	72	100
20,000 " " " 30,000.....	82	50	78	100
30,000 " " " 40,000.....	47	64	43	100
40,000 " " " 50,000.....	30	80	13	100
50,000 " " " 60,000.....	13	100	17	100
60,000 " " " 70,000.....	13	92	7	100

¹ This article is a summary of several chapters of a book on "Municipal Ownership in Great Britain" that will be published in November, 1905.

The foregoing table shows that in 1902, the year in which the federal government took a census of the street railways, 41 per cent. of the towns and cities in the United States having a population of 5,000 and less than 6,000 were supplied with street railways; that, with the increase of population, the percentage of towns supplied with street railways increased regularly and rapidly; and that all towns and cities of 15,000 and more inhabitants had street railways. In the United Kingdom, on the other hand, in the year 1903, only 9 to 13 per cent. of the towns of 5,000 and less than 9,000 inhabitants had street railways; for towns of 12,000 and less than 20,000, the percentage in question was 30; and not until cities of 50,000 and more inhabitants were reached, could one count on finding, in every instance, a street railway.

Turning from the question of the size of the towns and cities, to which the street railways have penetrated in the two countries under comparison, to the question of the respective extents of the street railways in these towns and cities which have street railways, one finds even a greater disproportion between conditions in the United States and the United Kingdom. The subjoined table shows that in the United States, in the year 1902, in a total of 530 cities, groups of cities and towns, and groups of towns, there was: in 24.7 per cent. of the cases, more than one mile of street railway track for each 1,000 people in 33 per cent. of the cases, one mile of track for each 1,000 to 1,499 people; in 21.9 per cent. of the cases, one mile for each 1,500 to 1,999 people; and in 10.7 per cent. of the cases, one mile of track for each 2,000 to 2,599 people. In the United Kingdom, on the other hand, there was, in 1903, no case of one mile of track for each 1,500 people or less. The most common ratio between street-railway trackage and population was: one mile of track for each 5,000 to 5,999 people, and one mile for each 7,000 to 7,999 people; the next most common ratio was one mile of track for each 4,000 to 4,999 people, and one mile for each 13,000 to 19,999 people; the third most common ratio was one mile for each 3,000 to 3,999 people; and the fourth most common ratio was one mile for each 11,000 to 11,999 people. These figures, it is true, relate to the year 1903. On the other hand, there has been no

material change in conditions since that year, as appears from the fact that the total street-railway route-mileage of the United Kingdom increased only from 1,772 miles in June, 1903, to 1,840 miles in March, 1904. The subjoined table elucidates, in detail, this subject of the ratio between street-railway trackage and population.

ONE MILE OF STREET RAILWAY TRACK FOR:	UNITED STATES 1902	UNITED KINGDOM 1903
	530 Cities, Groups of Cities and Towns and Groups of Towns	158 Cities, Groups of Cities and Towns, and Groups of Towns
	Per Cent.	Per Cent.
Less than 1,000 people.....	24.7	0
Each 1,000 to 1,499 people.....	33.0	0
“ 1,500 to 1,999 “.....	21.9	1.9
“ 2,000 to 2,599 “.....	10.7	5.7
“ 2,600 to 2,999 “.....	3.8	3.2
“ 3,000 to 3,999 “.....	2.8	7.6
“ 4,000 to 4,999 “.....	2.3	10.1
“ 5,000 to 5,999 “.....	} 1.5	12.7
“ 6,000 to 6,999 “.....		8.7
“ 7,000 to 7,999 “.....		12.7
“ 8,000 to 8,999 “.....		3.2
“ 9,000 to 9,999 “.....	0	5.1
“ 10,000 to 10,999 “.....	0	2.5
“ 11,000 to 11,999 “.....	0	6.3
“ 12,000 to 12,999 “.....	0	4.4
“ 13,000 to 19,999 “.....	0	10.1
“ 21,000 “.....	0	2.5
“ 22,000 to 29,000 “.....	0	3.2

In June, 1902, there were, in the United States, 16,652 route-miles of street railway and, 22,589 track-miles. Not less than 14,000 track-miles thereof were located within urban limits. The United Kingdom has practically the same urban population as the United States,² therefore it should have about the same

² CITIES WITH A POPULATION OF:	UNITED KINGDOM 1901		UNITED STATES 1900	
	Number	Aggregate Population	Number	Aggregate Population
250,000 and upward.....	13	9,691,000	15	10,936,000
100,000 and less than 250,000.....	26	3,833,000	23	3,272,000
50,000 “ “ “ 100,000.....	47	3,371,000	40	2,709,000
20,000 “ “ “ 50,000.....	159	4,068,000	135	3,971,000
10,000 “ “ “ 20,000.....	250	3,412,000	209	3,251,000
		25,275,000		24,139,000

urban street-railway track mileage; namely, 14,000 miles. In March, 1904, the total urban and interurban street-railway route-mileage of the United Kingdom was 1,840 miles,³ while the track-mileage did not exceed 3,200 miles. From these figures it follows, that the people living in the cities and towns of the United Kingdom have at their service less than one-quarter of the street-railway facilities that the people have who live in the cities and towns of the United States.

If space and time sufficed, it could be shown that, in 1880, the city population of the United Kingdom had less than one-fifth of the street-railway facilities that the city population of the United States had; and that, in 1890—the last year of the horse-railway era in the United States—the city population of the United Kingdom had considerably less than one-third of the street-railway facilities that the city population of the United States had.

The extraordinary and persistent deficiency of street-railway facilities in the United Kingdom is due to the fact that the Tramways Act, 1870, has paralyzed private enterprise, and that the municipalities have been unwilling to fill the void created by this paralysis. In 1878, the municipalities had built only forty-five route miles of tramway; in 1888, they had built only 236 route-miles; and in 1891, they had built only 255 miles. After 1892, the municipalities began to acquire tramways freely under the purchase clause of the Tramways Act, 1870, but they remained unwilling to build tramways freely. At the close of 1895, when 94 per cent. of the street railways of Massachusetts were electric street railways, only two British municipalities had dared to touch electricity, and those municipalities had acted in 1884

3

METHOD OF TRACTION	UNITED KINGDOM	UNITED STATES
	Route-mileage	Track-mileage
Electric.	1,462	21,920
Steam.	109	259
Cable.	30	241
Horse.	235	170
Gas.	4	0
	1,840	22,590

and 1890 respectively. Not until 1900 did the British municipalities make any serious efforts to abandon the horse railway.⁴ Not even today would any British municipality entertain the proposal to build an electric street-railway system on American lines, that is, on the basis of one mile of track for from 1,000 to 2,000 people.

The Tramways Act, 1870, authorizes the British Board of Trade, subject to the subsequent assent of Parliament, to issue charters to companies for the building and operating of street railways, provided the companies can obtain the consent of the cities or towns concerned. The charters are limited to twenty-one years, at the end of which period, the city has the right to purchase the plant at the cost of replacement, and with no allowance for good-will, earning power, or even past losses. Should the city not purchase at the end of twenty-one years, it will have the right to purchase at the end of each subsequent seven-year period. The Act was a disappointment to the promoters of street railways, who had asked that they be paid the price of replacement with an allowance of 30 per cent. additional for compulsory sale.

Experience soon taught the promoter that, if he laid out an extensive street-railway system for the purpose of developing traffic, by inducing people to move out to the outskirts of the city, he would lose money in the early years of his venture, that he would barely make interest on his investment for a number of years thereafter, and that by the time he was in a position to recover the losses incurred in the earlier years, his charter would be about run out, and the city would step in to reap the reward of his energy and foresight. The result was that the promoter soon learned to confine himself to the building of street railways in the business sections of the city, that he made little effort to reach the outskirts of the city.

In 1887 and the subsequent years, when the electric street

4 MUNICIPAL STREET RAILWAYS EQUIPPED WITH ELECTRICITY

Year	Number	Year	Number
1884.....	1	1900.....	7
1890.....	1	1901.....	14
1897.....	2	1902.....	18
1898.....	4	1903.....	22
1899.....	6		

railway went ahead by leaps and bounds in the United States, the charters held by the British street-railway promoters as a general thing had but from ten to fifteen years of life, and that short life did not warrant conversion from horse traction to electric traction. Many companies now applied to the cities for extensions of their charters, in order that they might convert to electric traction. But, almost without exception, the promoters met with refusal. On the other hand, it became practically impossible to get charters for entirely new enterprises. The cities argued that if the American promoter should make a success of the electric street railway, then they, the British cities, would take up the invention, after it had been fully established and there was no longer any possibility of loss. In the meantime, the British cities wanted to keep the field clear for themselves; they did not want companies to come in even under the terms of the Tramways Act of 1870. The result was that street-railway building came to a standstill in the United Kingdom in 1890. In the five years, 1891 to 1895, there were built in the United Kingdom only thirty-four miles of street railway, horse, cable, and electric.

Let us examine the conditions under which street-railway building came to a standstill in 1890. In 1881, the firm of Siemens Bros. & Co., of Berlin and London, built the first successful electric street railway of the world, the railway from Berlin to Lichterfelde. In 1883, that same firm built the second permanently successful street railway of the world, the street railway from Portrush to Bushmills, in northern Ireland. In that same year, Magnus Volk built a permanently successful electric street railway at Brighton Beach, a watering-place near London. In 1885, the city of Blackpool built a short line on the conduit system which remained in operation a number of years. In 1885 and 1886, companies built two further successful lines in Ireland and on the Isle of Wight. From 1887 to 1889, electric railway building was suspended. In 1890 to 1895, companies built eight very short electric lines, and the city of Birmingham built a line 1.25 miles in length.

In the United States, no permanently successful electric street railway had been built at the close of 1885. Two permanently

successful lines were opened in 1886; six, in 1887; thirty, in 1888; fifty-seven, in 1889; and forty-nine in the first six months of 1890. On June 30, 1890, there were in operation in the United States 144 electric street railways, with a route-mileage of 914 miles, and a track-mileage of 1,262 miles. The rate at which conversion to electric traction took place from that point on is indicated in the fact that by December, 1895, 94 per cent. of the street railways of Massachusetts were electric. From 1890 to 1895, all street railway building was at a standstill in the United Kingdom.

By this time, the prejudice against "dividend-seeking" companies, created by the agitation of the adherents of the policy of municipal ownership, had become so intense that the British Parliament did not dare amend the Tramways Act, 1870, though that act had paralyzed street-railway building. But what Parliament did not dare do directly, it sought to do indirectly. In 1896, it enacted "An Act to Facilitate the Construction of Light Railways in Great Britain." The act was to remain in force for five years by way of experiment; and since 1901 it has been renewed from year to year. With one exception, presently to be mentioned, the discussion in Parliament of the bill was confined to the agricultural depression in Great Britain, and the necessity of affording relief by the building of inexpensive light railways, which should give the farming districts better access to the existing steam railroads. Neither the act of 1896 nor any other statute defines "light railways," therefore tramways may be built, and are built, under authority of the Light Railways Act, 1896.

While the bill was before the House of Commons, Mr. Channing moved that it be amended so as to give the local authorities power to purchase on the terms of the Tramways Act, 1870, any tramway that might come to be built under the Light Railways Act. He withdrew the amendment, however, after Mr. Ritchie, who, as President of the Board of Trade, was in charge of the bill, had said: "He thought that enterprise would be very largely stopped if a local authority could wait until they saw that one of these railways was a success and then come forward and demand

to purchase it, that was a most unreasonable request to make, and would greatly interfere with the making of these railways."

The Light Railways Act, 1896, instructs the President of the Board of Trade to appoint three Light Railway Commissioners, who may issue Provisional Orders for the building of light railways. Those orders, upon confirmation by the Board of Trade, have effect as if enacted by Parliament. The Light Railway Commissioners or the Board of Trade may, at their discretion, embody in the Provisional Orders provisions fixing the maximum rates and charges for traffic, as well as provisions empowering any local authority to acquire the railway at the expiring of stated periods upon stated terms.

At the close of 1903, the Light Railway Commissioners had dealt with 244 applications for Provisional Orders for tramways on streets and roads. These tramways were to have a route-mileage of 1,871 miles, and they were estimated to cost \$89,522,000. The Light Railway Commissioners had issued Provisional Orders for 127 tramways with a route-mileage of 592 miles, estimated to cost \$28,769,000. They had rejected sixty-two applications covering a route-mileage of 617 miles. The remaining applications, covering 662 miles, had been withdrawn because the promoters had become convinced that the Light Railway Commissioners would reject them. This rejection of 68 per cent. of the street-railway mileage, for which charters had been asked under the Light Railways Act, does not mean that the building and operating of street railways is a "noxious trade" as is, say, the maintenance of a liquor saloon or a gambling house, and that it should, in the public interest, be restricted, since it cannot be entirely stopped. It means, simply, that the British Government, which determines the policy of the Board of Trade and of the Light Railways Commissioners, as well as the spirit with which the Board of Trade and the Light Railway Commissioners administer the Light Railways Act, is subject to the political pressure exercised through the House of Commons by the Association of Municipal Corporations and the Association of Urban District Councils. The former of these associations embraces

294 municipal corporations out of a total of 352 corporations. Its objects are :

By complete organization more effectually to watch over and protect the interests, rights, and privileges of municipal corporations as they may be affected by public Bill Legislation, or by private Bill Legislation of general application to boroughs; and in other respects to take action in relation to any other subjects in which municipal corporations may be interested.

The second association, which has similar objects, embraces 500 out of a total of 800 Urban District Councils. These two associations are dead-set against the Light Railways Act, because it does not compel the Light Railway Commissioners to insert the purchase clause of the Tramways Act, 1870; and because it gives the Light Railway Commissioners power to overrule the veto of the local authority upon the granting of a franchise.

Let us examine in some detail how the Light Railway Commissioners and the Board of Trade have administered the Act of 1896 under pressure from the Association of Municipal Corporations, the Association of Urban District Councils, and the advocates of the policy of municipal ownership.

The Light Railway Commissioners will not entertain an application for an order for a tramway situate entirely within the area of one local authority. They hold that such applications should be made under the Tramways Act, 1870, or by Private Bill.

The Light Railway Commissioners will not issue an order if all the local authorities whose territory the tramway purposes to traverse are opposed. In such a case, they will not even inquire into the merits of the proposed tramway. They have issued to several local authorities conjointly an order which they had previously withheld from private promoters. They have also withheld an order from one set of promoters, and subsequently, they have issued practically the same order to another set of promoters who had secured the endorsement of the local authorities.

The Corporation of Hastings endorsed the Electric Company's application for an Order for Hastings, Bexhill and District. But, since the vote of the Corporation had not been unanimous, and there was strong opposition on the part of residents and taxpayers of Hastings, the Commissioners "decided

not to impose on the town a scheme not generally acceptable." Hastings has 68,000 inhabitants, and to this day it has no street railway.

When the local authorities concerned are divided on the question whether a Provisional Order should be granted, the commissioners ask the promoters to prove that there is a public need or a general public desire for the purposed tramway. The promoters of the Fuichley, Heaton and District Tramway were unable to furnish such proof to the commissioners, though the three towns, which are suburbs of London, have populations of respectively 24,000, 22,000, and 82,000, and are situated in a territory which has, on the average, one mile of street-railway track for each 17,500 inhabitants.

Edinburgh has 317,000 inhabitants, of whom 17,400, in 1901, lived in the condition of 3 to 10 persons in one room, while another 57,200 lived in the condition of 5 to 12 persons in two rooms. Edinburgh has a municipal street railway with a route-mileage of 23.5 miles and a track-mileage of 43 miles. But the commissioners rejected an application of private promoters for an order for 6.5 miles of tramway in Edinburgh and District, on the ground that "a sufficient case had not been made out as to the need for this line in the public interest."

Glasgow with its suburbs has upward of 1,000,000 inhabitants, and less than 140 miles of municipal street-railway track. Glasgow proper has 760,000 inhabitants, of whom, in 1901, no less than 91,200 lived in the condition of 3 to 12 persons in one room, while another 194,300 lived in the condition of 5 to 12 persons in two rooms. In May, 1898, the British Electric Traction Co., Ltd., applied for an order for 11.25 miles of electric tramway to connect Glasgow with the suburbs of Paisley, Renfrew, and Johnstone. "At the inquiry, the promoters withdrew the portion giving access to Glasgow, and the Corporation of Paisley assumed an attitude of hostility to the scheme. The commissioners were unable to approve it under the circumstances."

The Light Railway Commissioners granted the Dewsbury, Batley & Bristol Co., an established street railway, a Provisional Order to build extensions in Batley, which has a population of

30,000. The Corporation of Batley, up to the time in question, had neither built nor acquired tramways. But before the Board of Trade had confirmed the order issued by the Light Railway Commissioners, the Corporation of Batley applied for permission to build a tramway in one or two miles of street covered by the Provisional Order granted to the Dewsbury, Batley & Bristol Co. Thereupon, the Board of Trade amused itself by giving the company authority to build one track of the proposed double-track railway, and the corporation authority to build the other track.

In November, 1898, Messrs. Greenwood & Batley, Ltd., applied for an order for 6.25 miles of electric tramway in Nelson, Colne, and Trawden. None of the towns had any tramways, though Nelson and Colne had respectively 33,000 and 23,000 inhabitants. Thereupon, the borough of Nelson concluded that it would be a good speculation to execute that part of Messrs. Greenwood & Batley's scheme that lay within the borough of Nelson, namely, 1.25 miles, and thus intercept a goodly share of the profit on any business that Messrs. Greenwood & Batley might build up between Nelson on the one hand and Colne and Trawden on the other. The Light Railway Commissioners issued to Messrs. Greenwood & Batley an order for their scheme, "with the exception of the portion in the borough of Nelson, which was granted to that corporation."

It will be remembered that the Light Railways Act, 1896, was enacted for a period of five years, which period was to expire on December 31, 1901. In February, 1901, the *Municipal Journal*, the organ of the adherents of the policy of municipal ownership, wrote as follows:

An attempt is to be made, we learn, to give that legislative anomaly, the Light Railways Act, a permanent place on the Statute Book. . . . The Government is slated to be "satisfied with the experiment." They are not the only folk who have derived a measure of satisfaction from the Act. There are the astute tramway promoters, who have found the measure a very effective means of evading the restrictions of the Tramways Act, 1870 [i. e., the local veto], and of freeing themselves of the burden of the "purchase" clauses. The Act has been employed for means never contemplated by its

framers, and municipal authorities would be well advised if they would bring pressure upon the Government, either to secure the abandonment of the Act, or at least its amendment. . . .

Notwithstanding this warning, Mr. Gerald Balfour, President of the Board of Trade, in April, 1901, brought in a bill to amend and to continue for five years the Light Railways Act. In August, however, Mr. Balfour withdrew the bill, "simply and solely because it would have given rise to a large amount of discussion." These words of Mr. Balfour were "parliamentary language" for expressing the fact that the British government was afraid to antagonize the Association of Municipal Corporations, the Association of Urban District Councils, and the adherents of the policy of municipal ownership.

The opposition to renewal of the act for five years was based largely on the fact that it was within the discretion of the Light Railway Commissioners to insert "purchase clauses" or leave them out. With only three exceptions, the orders granted for tramways down to December, 1901, had authorized the local authorities to purchase the tramways after a stated number of years on the basis of "fair market value as a going concern, but without any allowance for compulsory purchase." The most common arrangement had been 25 to 30 years; and in two cases it had been respectively 40 and 42 years.

PART II. ELECTRIC LIGHTING

In 1881, the incandescent electric lamp was brought to the "commercial stage," and British capitalists and manufacturers of electrical machinery, representing millions of pounds sterling, stood ready to exploit the new invention. In 1882, Parliament appointed a Select Committee to consider the terms upon which franchises should be granted to electric-light companies by the Board of Trade, subject to the subsequent approval of Parliament. Sir John Lubbock, chairman of the British Edison Company, appeared as the spokesman of the moneyed men of London. He was the head of the great banking house of Roberts, Lubbock & Co., and he had, in the past done more than any other single man in England to find money for the commercial development

of inventions. Sir John Lubbock asked that the charters of electric-light companies be made to run 21 years, with allowance for good-will in the event of compulsory sale to the city at the end of that period. He said capital would not embark in the business of developing the new industry on the basis of compulsory sale at the structural value of the plant. At about the same time, the (London) *Economist*, the leading financial journal of the world, said:

The electric light is very probably a great invention, and, for the sake of argument, let us take it for granted that its future development will be vast. But this, unhappily, cannot be urged as a reason why the pioneer companies should be prosperous. The history of our company manias has always proved the contrary.

In support of this statement the *Economist* cited the early history of the steam railway, the submarine telegraph, the asphalt paving, and the sewage companies; and added that the list could be extended to any length. The Select Committee, under the influence of its chairman, Mr. Joseph Chamberlain, who was also President of the Board of Trade, reported in favor of fifteen years as the length of franchises. In the House of Commons, Mr. Chamberlain, who was in charge of the bill by virtue of his being president of the Board of Trade, said:

The Select Committee were guided in their conclusions by this line of reasoning—that it was the bounden duty to accept the shortest term which would leave room for the development of these experiments, and to go beyond that, they considered, would be to prejudice the rights of the public for the benefit of private speculators. The objects of the Bill were twofold: first, that no obstacle should be placed in the way of the development of the electric light; but, in the second place, that the interest of the public, as a whole, should be protected, and that a new monopoly should not be set up, as in the case of the gas companies, the water companies, and the telegraph companies, only to be purchased at a ruinous price.

The House of Lords changed the fifteen years to twenty-one years, and the House of Commons accepted the amendment. In the House of Lords the Marquis of Salisbury said:

He thought the terms offered to the electric companies were not quite fair . . . these companies would have to carry on their undertakings with the full consciousness that all the risks would be theirs, and all the profits would

go to the public — that was to say, if they failed, no one would come forward to help them [i. e., no city would buy at the end of fifteen years], and if they succeeded, the municipalities would step in and sweep up all the benefits. . . . He apprehended that Parliament's first duty was to consult the interests of the public, not by thinking merely of the profits which the municipalities might or might not make some fifteen years hence, but by thinking how some good would come to the consumers of an article which would benefit them enormously. It was the public which would suffer if the companies were not allowed to come into the field, and if this new instrument of power, discovered by science, should lie useless and unfruitful for several years.

In 1883, the electric-light companies took out 55 charters; in 1884, four charters; in 1885, none; in 1886, one; and in 1887 and 1888 none. At the close of 1888 every one of the foregoing charters had been revoked for non-use. The companies, one and all, had been absolutely unable to raise money under the twenty-one year franchise with the provision for compulsory sale at cost of replacement.

At the close of 1888, there were in the United Kingdom only seven central electric light stations. None of them were operated under a franchise; some were operated under a seven-year license issued by the Board of Trade, but most of them existed simply under common law rights. The latter distributed current by means of wires strung from house-top to house-top, and they were constantly liable to being sued as nuisances. None of the seven stations amounted to anything whatever, and they are here mentioned only for the sake of accuracy.

In the United States, the first central electric light station was opened in 1881; and at the close of 1888 there were in operation not less than 574 stations.

Once more there was complete failure of the British municipalities to fill the void which they had created by paralyzing private enterprise. In the long years 1882 to 1888, not a single city dared touch the electric light.

Toward the close of 1888, Parliament amended the Electric Lighting Act, 1882, extending the life of franchises to forty-two years, but retaining the provisions for compulsory sale at structural value at the end of that period. Companies now became able to raise money; and thereupon the cities developed new tactics

with the view once more of paralyzing private enterprise. The very largest cities, such as Glasgow, Birmingham, Liverpool, and Manchester, still were afraid of the electric light in 1890, though at the end of that year there were in operation in the United States not less than 1,009 central electric stations. For the sake of preventing companies from getting a foothold in the city, Birmingham and Liverpool allowed companies to supply current in a very restricted portion of the heart of the city, on condition that the company should sell out to the city as soon as the company had proved that it could make money. The cities subsequently bought out these companies; but not until near 1900 did the cities undertake to supply current in the outer portions of the business district or in the residential districts. Glasgow and Manchester established small municipal plants and served only the very center of the business district. In 1898, for example, supply was available only in four square miles out of twenty in Manchester. Not until 1900 did Glasgow undertake to supply the regions beyond the center of the city. In that same year, the lord provost of Glasgow stated before a Select Committee of Parliament that Glasgow had paralyzed the municipal electric-light plant for the sake of protecting the city gas plant.

The medium-sized cities for a number of years kept out private companies by registering a protest with the Board of Trade, whenever a company applied for a charter. The Board of Trade has the lawful right to overrule such protests, but as a matter of fact it rarely has acted on that right. It has sought to justify its policy by saying that the local authorities are the best judges of the interests of their inhabitants. But the real reason for the Board of Trade's common refusal to overrule a local protest is that the successive governments have been afraid to arouse the opposition of the Association of Municipal Corporations and the Association of Urban District Councils, by permitting the Board of Trade to overrule the local protests against charters being granted to electric-light companies.

When the cities got tired of registering protests against charters being granted to companies, they developed the habit of pre-empting the field by taking out charters and then sitting on

them. For example, at the close of 1903, 241 cities were operating municipal electric-light plants. The cities in question had allowed to elapse between the taking out of a charter and the supplying of current: in 43 instances, 4 years; in 29 instances, 5 years; in 17 instances, 6 years; in 10 instances, 7 years; in 9 instances, 8 years; in 6 instances, 9 years; in 9 instances, 10 years; in 4 instances, 11 years; in 1 instance, 12 years; and in 1 instance, 16 years. Furthermore, at the close of 1903, there were 70 cities which had been sitting on their charters for from four to thirteen years. At the close of 1903, no supply of current was available, though there had elapsed since the granting of the charter: in 35 instances, 4 years; in 16 instances, 5 years; in 8 instances, 6 years; in 2 instances, 7 years; in 2 instances, 8 years; in 2 instances, 11 years; in 3 instances, 12 years; and in 2 instances, 13 years.

The law authorizes the Board of Trade to revoke a charter, whether granted to a company or to a city, if supply is not forthcoming at the close of the period specified in the charter, commonly two years, and occasionally three years. The Board of Trade invariably revokes the charter of a company, if the company fails to supply current within the time specified, but down to 1900, the Board of Trade very rarely revoked a charter granted to a municipality. Since that year it is somewhat more severe with municipalities, in consequence of the complaints made before the Select Committee on Municipal Trading of 1900 of the scandalous maner in which the Board of Trade was administering the law, making one law for companies, and another law for cities.⁵

⁵ Provisional Orders issued to companies and subsequently revoked by the Board of Trade:

Number of Years that the Orders had been in Force	Number of Orders Revoked
2.....	83
3.....	5
4.....	1
5.....	2
6.....	1
8.....	1

According to the federal census taken in 1902, every town and city in the United States with a population of 5,000 or more inhabitants had a public electric-light plant in 1902. In addition there were 2,714 public light plants distributed among some 3,500 towns with a population of 1,000 to 4,999. In the United Kingdom at the close of 1903, only thirty-one towns out of 578 with a population of 1,000 to 4,999 had public electric light plants; 157 out of 610 towns and cities ranging from 5,000 to 24,999 people had electric-light plants; and 132 out of 168 cities ranging from 25,000 to 99,999 had electric-light plants. In August, 1905, there was no public electric light in Tottenham, a part of Metropolitan London, having upward of 105,000 inhabitants; nor in Rhondda, a city in Wales, having upward of 120,000 inhabitants.

On January 1, 1905, there were in the United Kingdom only 363 central electric stations. Had the towns and cities of the United Kingdom at that date been as well supplied with central electric stations as were the cities and towns of the United States in 1902, the United Kingdom would have had in January, 1905, not 363 central electric stations, but 1,260.

PART III. ELECTRIC POWER SUPPLY

In 1883, the Board of Trade issued the following notice, "to guide applicants for charters under the Electric Lighting Act, 1882":

. . . . No monopoly is granted, or intended to be granted, to them [parties obtaining charters]; and should they neglect their duties in the district, or charge exorbitant prices, there is nothing to prevent the immediate grant of

Provisional Orders issued to municipalities and subsequently revoked by the Board of Trade:

Number of Years that the Orders had been in Force	Number of Orders Revoked
3.....	1
4.....	5
5.....	3
6.....	1
7.....	2
8.....	5
9.....	2
10.....	2

a charter to a competing set of undertakers within the same district. In the case of local authorities there will be not only competition to look to, but also public opinion:

Continued the notice of the Board of Trade (This paragraph is quoted at length) :

because there has been some misapprehension of the principles adopted, and because the Board of Trade wish it to be distinctly understood, both now and at all future times, under what conditions the present concessions are made, *and thus to prevent any future claim to monopoly inconsistent with those conditions.*

The first section of the Amendment Act, 1888, also ends with these words :

the grant of authority to any Undertakers to supply electricity within any area, whether granted by license or by a provisional order (charter), shall not in any way hinder or restrict the granting of a provisional order to the local authority, or to any other company or person within the same area.

In 1898, the large manufacturers of the district of Chesterfield formed a syndicate bearing the name "The General Power Distribution Co.," and asked Parliament for authority to supply current to customers in an area of 2,100 square miles, including Sheffield and Nottingham. Local authorities and companies had taken out charters covering 66 square miles of this area, but in only $4\frac{1}{2}$ square miles was current available. The district was one of the most important manufacturing districts in England, it had a population of 1,000,000, and there were only 1,546 persons or firms who were customers of central electric stations.

The General Power Distribution Bill was referred to a Select Committee of both Houses, which reported favorably. Thereupon the bill was passed by the Lords, with the amendment that, in areas covered by charters held by local authorities or existing companies, the General Power Distribution Co. should supply only to such individuals or firms who would take current in bulk for power, and not less than 10,000 units a year. The House of Lords, which habitually treats with most scrupulous regard all vested interests, held that the amendment in question did ample justice to all interests that had embarked in electric lighting in the earlier period, that is, before it had occurred to engineers to use for

power purposes, electrical energy generated on a large scale under most favorable conditions of economy.

The passage of the bill by the House of Lords aroused the Association of Municipal Corporations as well as the adherents of the policy of municipal ownership. For it was realized that the purposed electricity-in-bulk generating plants would be able to supply current for light and for power at much cheaper rates than could the old-fashioned local electric-light plants. It was realized, also, that that meant a check to the extension of the municipal ownership of electric-light and power plants, and, in some cases, the closing down of existing local municipal plants.

In January, 1899, shortly before the date upon which the House of Commons was to take up the General Power Distribution Bill, the Lord Mayor of Manchester, whose city was not directly affected by the bill, called a conference of the Municipal Corporations of Lancashire and Cheshire. The principal speaker, Alderman Higginbottom, of Manchester, said:

If the report of the Parliamentary Select Committee of 1898 should ever be sanctioned by Parliament, it virtually would mean . . . that Parliament would practically declare that the monopoly in the supply of electricity, which certain towns were supposed to have obtained from the Board of Trade, existed only in the mind of the Board of Trade, and could be done away with by giving powers to a company.

The conference resolved to oppose the General Power Distribution Bill in each House of Parliament, and at every stage; also, to ask the co-operation of the Association of Municipal Corporations, and of the Association of Urban District Councils.

The House of Commons, in March, 1899, rejected the bill, although the promoters had agreed to accept an amendment excluding the company altogether from the territories of the municipalities, but not from the territories of the urban districts.

The bill had had the support of all the Chambers of Commerce in the area of 2,100 square miles, including that of Sheffield. Many of the Urban District Councils had been in favor of the bill, but they had feared to support the bill, not daring to alienate the Association of Municipal Corporations, whose good-will is of great value to the Association of Urban District Councils. None

of the Urban District Councils directly affected, were supplying current.

Mr. Davenport, who was in charge of the bill, said :

We are asked to do this [reject the bill] at the bidding and at the instigation of the Association of Municipal Corporations, scattered all over the country, some of whom are interested in gas undertakings some of whom have electric supplies of their own at a cost to the consumer in every case higher than the maximum charge which is permitted under this bill, and others of whom neither have, nor propose to have any electric supply, but who combine with other corporations [municipalities] in a spirit of friendship and sympathy and brotherly affection when the sacred rights of municipal monopoly are threatened with the possibility of competition by private enterprise. . . . The influence of the Corporations [Municipalities] has always been very strong in this House, but I cannot refrain from saying that I think it will be well if they are careful that that influence is not exercised unduly and excessively, as I think it has been in connection with this bill. . . .

The motion to reject the bill was made by Mr. S. Wortley [Sheffield], "as being intimately connected with the largest municipality which this bill proposes to attack." Mr. Wortley said :

. . . . the fact that the other House has passed the Bill indicates that in the other House there is not that unlimited respect and jealous watchfulness for the integrity and independence of municipal privileges which the House of Commons has always shown. . . .

Mr. Wortley's motion was seconded by Mr. Pickersgill, who said :

Lastly, the promoters of this Bill point to the experience of America. . . . I think the reference is singularly unfortunate, because it is notorious that the United States have become the prey of monopolist companies. It is because I believe the ultimate effect of the Bill must be to put large areas in England, interspersed among which are great industrial centers, under the control and at the mercy of a dividend-earning company, that I very heartily second the amendment.

Mr. Stuart Wortley was willing to accept the compromise offered by the promoters of the bill, but Sir J. Woodhouse, vice-president of the Association of Municipal Corporations, as the representative in Parliament of that association, rejected the compromise, and defeated the bill. The association demanded the recognition of the claim that no power distribution company

should be allowed to supply current in any local government area, except with the consent of the area concerned.

The President of the Board of Trade, Mr. Ritchie, said:

I came down to the House prepared to recommend the rejection of the Bill, if it remained in the shape in which it was introduced. It seemed to me the principle of the Bill was a direct attack on the rights, privileges, and duties of Municipal Corporations, and whatever might have been the contingent advantages [to British industry] of the passage of the Bill, I should have been bound to tell the House I did not think it would be wise in passing a Bill which practically set aside the existing law which adequately protects Corporations [Municipalities] in the exercise of the duties which they have to discharge. . . .

Mr. Ritchie's argument rested on two unsupportable statements: Parliament neither had imposed on the local authorities the duty of supplying electric current, nor had it promised exemption from competition to such local authorities as should voluntarily elect to go into the business of supplying current.

In 1900, Mr. D. H. Davies, Secretary of the Chesterfield Chamber of Commerce, stated before the Select Committee on Municipal Trading, that the promoters of the General Power Distribution Bill had spent \$50,000 in parliamentary fees.

It has been within my own experience that this kind of opposition to enterprise has driven away capitalists, who have preferred to go into large enterprises of a similar character in foreign countries.⁶ They fear not merely the expenses of the fight in Parliament, and the risk of it, but they fear also that the hostile attitude of the local authorities would be continued if they should get charters from Parliament. Of course the local authorities have great power [of harassing companies] with their street by-laws, in one way or another, and that is a very serious consideration.

Since 1900, a number of power-distributing companies have obtained charters. The terms upon which the charters have been granted have depended largely upon the degree of opposition exercised by the local authorities concerned. In no cases have the terms been such as to promote the utmost possible development

⁶ In the *Street Railway Journal* for October, 1899, Mr. W. J. Clark, late manager of the railway department of the (American) General Electric Co., stated that, to his personal knowledge, British capitalists had invested \$35,000,000 in American street railways. At that time the total investment of British capitalists in British street railway companies was only \$52,000,000.

of the new industry of generating electricity in large amounts for the purpose of cheap supply to mining and manufacturing concerns. Among the Power Acts passed in 1901 was the act granting a franchise to the Derbyshire and Nottinghamshire Electric Power Co., a revival of the General Power Distribution scheme defeated in 1899. The promoters asserted, in 1901, that they represented manufacturers who had invested in their manufactures fully \$100,000,000, and that "nothing but a comprehensive scheme for supplying cheap power could restore some of the decaying industries which have been domiciled in this district for a very long period."

From one-third to one-half of the population of Great Britain depends for its very existence upon the export of British manufactures, which pay for the imports of food-stuffs, building material, and raw material for clothing. On the other hand, the struggle for the world's export trade is becoming keener with each succeeding decade. Germany, Great Britain's leading rival in that struggle, is forging ahead by leaps and bounds in the application of electricity to manufacturing and mining, especially by means of power-generating and distributing plants, depending for their motive force either upon water power or upon steam power obtained from coal. Great Britain has no water power; but its engineers and capitalists are ready to stake their reputations and their money upon their ability to utilize more effectively than has been possible in the past Great Britain's coal resources—to do that by means of the new power plants. But the greed of the British municipalities is doing its utmost to defeat the efforts of the engineers and the capitalists.

In the remarkably prophetic and profoundly penetrating address that he gave in 1890, upon the occasion of the first annual dinner of the Institution of Electrical Engineers, in London, the late Marquis of Salisbury, in terms as philosophic as they were eloquent, pointed out the enormous and far-reaching results that would probably ensue from the use of electricity as an agent for the transmission of power, and the great industrial and social benefits that might be expected from development in that direction. The Marquis of Salisbury was Prime Minister from 1885

to 1892, and from 1895 to 1902, but he was either unable or he deemed it politically inexpedient, to impress upon British legislation his enlightened views upon the services rendered to society in the past by private enterprise, and the advantages likely to accrue to society in the future from the application of individual initiative and private enterprise, to the exploitation of the new force: electricity.

Electric power distribution, conjointly with the use of the telephone, and the electric street railway, promises profoundly to modify our social life by promoting the movement of industries from crowded cities into the surrounding country. But in Great Britain, each one of these three agencies is being held back by municipal greed of gain.

The persons setting forth these facts, find it difficult to get a hearing. The average British voter is a short-sighted person, who cannot see beyond the fact that the city has borrowed money for investment in an electric plant, and that any impairment of the earning power of that plant is likely to mean increased taxation. Then, again, the average voter is caught in the meshes of the specious argument that the profits to be made in any of the so-called public service industries that make use of the streets, belong to the general public, and not to "mere private speculators." He has been hypnotized by the words of Mr. Joseph Chamberlain: "I distinctly hold that all monopolies which are sustained in any way by the State ought to be in the hands of the representatives of the people; by the representative authority should they be administered, and to them should their profits go, and not to private speculators."

Industrial progress comes not from the people at large acting in their individual capacities, nor from the people at large as in the sovereign capacity of state or municipality. Industrial progress comes exclusively from a comparatively small body of men of unusual imagination, great daring, power of persuasion, and executive ability. These men see, or think they see, possibilities of development where the average man sees nothing. They have in addition the courage of their convictions, as well as the power

to infuse that courage into others—the possessors of the capital without which no new idea can be tested or developed. Finally, the men in question have executive ability: the power to plan, and the ability to select the men who can be trusted with all the execution of their plans.

The United States differs from Europe, not so much in the possession of men of this unusual type, as in the full use that it makes of such men of this type as it possesses. For this difference between the United States and Europe there are two reasons. One of them is the extraordinary opportunities afforded by democracy and by a virgin country, rich in resources of all kinds. The other, and more important one, is the comparative absence of governmental regulation and supervision. In the United States, we proceed on the assumption that the innovator promotes the public welfare in seeking his own interests; in Europe, they proceed on the assumption that the innovator is a suspicious, if not a dangerous character; one who must be watched and checked, lest, in the pursuit of his own interests, he override the public weal.

Innovations have two characteristics. They often threaten established interests; and they have a way of arousing in the minds of many men the fear of all kinds of imaginary dangers. The latter characteristic seems to be gaining weight, rather than losing it, though experience has shown time and again, that such fears are, in the great majority of cases, unfounded. The habit of governmental regulation and supervision enables the established interests, that are threatened by a proposed innovation, to enlist on their side those unfounded fears of imaginary dangers, and thus to throw great difficulties in the way of the achievement of innovations. This is why the European habit of governmental regulation and supervision has prevented Europe from making that full use of its men, who are capable of becoming great promoters and great captains of industry, that the United States habitually makes.

We have in this country a body of aggressive men whose ideas are “made in Europe,” who are asking us to abandon our forefathers’ faith that that government is best which governs

least. For the free play of industrial and commercial forces, they ask us to substitute public regulation and supervision. More than that, they ask us to repudiate our ancient faith to the extent of converting a great branch of our government, our cities, into money-making institutions, into traffickers in franchises for the use of the public streets. They support their revolutionary proposals with the specious argument that the profits, derivable from industries that must make use of the public streets, in justice should be turned into the city treasury, not into the treasuries of stock companies. They spread broadcast over our land accounts of the experience of Great Britain that are ill-informed and show no trace of the grasp of the statesman. We are in great danger of listening to these unwise councilors and of traveling the road to failure, the road which every people has traveled that has asked its government to do more than maintain law and order and act as the impartial judge between man and man.

HUGO R. MEYER.

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